

REMARKS

In the Office Action, the Examiner objected to the drawings. Corrected drawings are submitted herein. Applicants respectfully request that the Examiner's objections to the drawings be withdrawn.

Claims 11, 30, and 49 have been canceled. Thus, claims 1-10, 12-29, 31-48, and 50-52 are pending in the present application.

In the Office Action, claims 6, 16, 26, 31, 37, and 50 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

With regard to claim 16, the Examiner indicated that the phrase "substantially" is not well understood. Claim 16 has been amended to remove the term "substantially." The claims have in no way been narrowed by virtue of these amendments and so these amendments should not be interpreted as narrowing the claimed invention for purposes of any determination under the doctrine of equivalents.

With regard to claim 6, the Examiner alleges that the "kick-out timer" appears to be the same as the "re-initiation timer." Applicants respectfully disagree and note that the claimed kick-out timer is configured to provide an indication to the processor of when the processor is to exit the secure mode, whereas the claimed re-initiation timer is configured to provide an indication to the processor of when the processor is to exit the secure mode into the standard mode.

With regard to claim 26, the Examiner indicates that the phrase "indicative of the entry in response to providing the entry," is not well understood. Applicants respectfully submit that

claim 26 sets forth a control signal that is indicative of the entry. The claimed control signal is asserted in response to providing the entry.

With regard to claims 31, 37, and 50, the Examiner indicates that the phrase “in lieu of data” is not well understood because any response will contain data. Applicants respectfully disagree and note that the data is requested from the secure assets. In some embodiments of the present invention, a predetermined response may be provided in lieu of data. Moreover, on page 17 of the Office Action, the Examiner takes Official Notice that it is old and well-known to provide a predetermined response in lieu of data.

For at least the aforementioned reasons, Applicants respectfully submit that claims 6, 16, 26, 31, 37, and 50 are definite and request that the Examiner’s rejections of these claims under 35 USC 112, second paragraph, be withdrawn.

In the Office Action, claims 1, 16, 21, 34, 39, and 40 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Takahashi, et al (U.S. Patent No. 5,615,263). Claims 31, 37, and 50 were rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi in view of Official Notice. The Examiner’s rejections are respectfully traversed.

Takahashi describes a secure mode operating within a dual mode processor. However, as admitted by the Examiner, Takahashi does not describe or suggest a mailbox RAM configured to store input and output data, wherein the mailbox RAM includes an inbox for storing input data for the one or more secured assets and an outbox for storing output data from the one or more secured assets, as set forth in independent claims 1, 21, 34, 39, and 40. For at least this reason, Applicants respectfully submit that the present invention is not anticipated by Takahashi and request that the Examiner’s rejections of claims 1, 16, 21, 34, 39, and 40 under 35 U.S.C. 102(b) be withdrawn.

Moreover, it is respectfully submitted that the pending claims are not obvious in view of Takahashi. To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). As discussed above, Takahashi does not describe or suggest a mailbox RAM configured to store input and output data, wherein the mailbox RAM includes an inbox for storing input data for the one or more secured assets and an outbox for storing output data from the one or more secured assets, as set forth in independent claims 1, 21, 34, 39, and 40. The Examiner takes Official Notice that it is old and well-known to provide a predetermined response in lieu of data. However, the Official Notice fails to remedy the fundamental deficiencies of Takahashi. Thus, Applicants respectfully submit that the present invention is not obvious over Takahashi in view of Official Notice and request that the Examiner's rejections of claims 31, 37, and 50 under 35 U.S.C. 103(a) be withdrawn.

In the Office Action, claims 1-9, 19, 21-22, 25-28, 32, 34-36, 38-41, 44-47, and 51 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Angelo, et al (U.S. Patent No. 6,581,162). Claim 20 was rejected under 35 U.S.C. 103(a) as being unpatentable over Angelo in view of Heald, et al (U.S. Patent No. 5,272,382). Claims 23 and 42 were rejected under 35 U.S.C. 103(a) as being unpatentable over Angelo in view of Anderson (U.S. Patent No. 6,581,172). Claims 24 and 43 were rejected under 35 U.S.C. 103(a) as being unpatentable over Angelo in view of Vogt (U.S. Patent No. 6,775,776). Claims 10, 29, and 48 were rejected under 35 U.S.C. 103(a) as being unpatentable over Angelo in view of Colvin (U.S. Patent No. 6,044,471). Claims 5-8, 28, and 47 were rejected under 35 U.S.C. 103(a) as being unpatentable over Angelo in view of Darago (U.S. Patent No. 6,170,014) and Hunter (U.S. Patent No. 5,920,850). Claims 10 and 29 were rejected under 35 U.S.C. 103(a) as being unpatentable over

Angelo in view of Darago, Hunter, and Colvin. The Examiner's rejections are respectfully traversed.

Angelo describes a method for securely managing encryption information in a computer system that uses a secure mode of operation and a normal mode of operation. However, as admitted by the Examiner, Angelo does not describe or suggest a mailbox RAM configured to store input and output data, wherein the mailbox RAM includes an inbox for storing input data for the one or more secured assets and an outbox for storing output data from the one or more secured assets, as set forth in independent claims 1, 21, 34, 39, and 40. For at least this reason, Applicants respectfully submit that the present invention is not anticipated by Angelo and request that the Examiner's rejections of claims 1-9, 19, 21-22, 25-28, 32, 34-36, 38-41, 44-47, and 51 under 35 U.S.C. 102(e) be withdrawn.

Moreover, it is respectfully submitted that the pending claims are not obvious in view of the prior art of record. As discussed above, Angelo does not describe or suggest a mailbox RAM configured to store input and output data, wherein the mailbox RAM includes an inbox for storing input data for the one or more secured assets and an outbox for storing output data from the one or more secured assets, as set forth in independent claims 1, 21, 34, 39, and 40. Heald describes a battery to provide reserve power, Anderson describes a random number generator, Vogt describes a monotonic counter, Colvin describes measuring a time period, Darago describes time restricted security transactions, and Hunter describes a countdown timer. However, none of the secondary references remedy the fundamental deficiencies of Angelo. For at least these reasons, Applicants respectfully submitted that the present invention is not obvious over any combination of Angelo, Heald, Anderson, Vogt, Colvin, Darago, or Hunter. Applicants request

that the Examiner's rejections of claims 5-8, 10, 20, 23-24, 28-29, 42-43, and 47-48 under 35 U.S.C. 103(a) be withdrawn.

In the Office Action, claims 1, 11-13, 15-16, 21, 30, 32-35, 38-41, 44-46, 49, and 51-52 were rejected under 35 U.S.C. 102(b) as being anticipated by the Hadfield publication, referred to hereinafter as Hadfield. Claims 17-18, 31, 37, and 50 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hadfield in view of Official Notice. Claims 19-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hadfield in view of Heald. Claims 24 and 43 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hadfield in view of Vogt. Claims 23 and 42 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hadfield in view of Anderson. Claims 2 and 14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hadfield in view of Aaro (U.S. Patent No. 6,662,020). The Examiner's rejections are respectfully traversed.

The Examiner alleges that Hadfield describes a mailbox RAM that includes an inbox for storing input data for the one or more secured assets and an outbox for storing output data from the one or more secured assets. Applicants respectfully disagree. Hadfield makes no mention of any mailbox RAM and, in particular, is completely silent with regard to mailbox RAM that includes an inbox for storing input data for the one or more secured assets and an outbox for storing output data from the one or more secured assets.

The Examiner attempts to remedy this deficiency in Hadfield by arguing that any computer RAM (or memory bank) in the Windows NT Server is a mailbox RAM. Applicants respectfully disagree. For example, as described in the specification, one embodiment of mailbox RAM 415 includes two banks of RAM, such as 512 bytes each, for passing parameters into and out of the secure execution box 260. Parameters passed to or from the sub-devices


included within the security hardware 370 are exchanged at the mailbox RAM 415. One bank of RAM 415, an inbox, is write-only to most of all of the computer system in most operating modes. Thus, parameters to be passed to the sub-devices included within the security hardware 370 may be written into the inbox. During selected operating modes, such as SMM, both read and write accesses are allowed to the inbox. Another bank of RAM 415, an outbox, is read-only to most of all of the computer system in most operating modes. Thus, parameters to be received from the sub-devices included within the security hardware 370 may be read from the outbox. During selected operating modes, preferably secure modes, such as SMM, both read and write accesses are allowed to the outbox. See Patent Application, page 20, line 17 – page, 21, line 3 and Figure 5A.

Moreover, it is respectfully submitted that the pending claims are not obvious in view of Hadfield, Heald, Vogt, Anderson, or Aaro, either alone or in combination. As discussed above, Hadfield else to teach or suggest mailbox RAM that includes an inbox for storing input data for the one or more secured assets and an outbox for storing output data from the one or more secured assets. The Examiner takes Official Notice that it is old and well-known to provide a predetermined response in lieu of data. Heald describes a battery to provide reserve power, Anderson describes a random number generator, Vogt describes a monotonic counter, and Aaro describes a memory for storing data directly coupled to a display. However, Heald, Anderson, Vogt, and Aaro all fail to remedy the fundamental deficiency of Hadfield. For at least these reasons, Applicants respectfully submit that the present invention is not obvious over any combination of Hadfield, Heald, Anderson, Vogt, or Aaro. Applicants request that the Examiner's rejections of claims 2, 14, 17-20, 23-24, 31, 37, 42-43, and 50 under 35 U.S.C. 103(a) be withdrawn.

For the aforementioned reasons, it is respectfully submitted that all claims pending in the present application are in condition for allowance. The Examiner is invited to contact the undersigned at (713) 934-4052 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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